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HISTORICAL ACCOUNT OF THE LOBSTER CANNING INDUSTRY

BY

RICHARD H. WILLIAMS

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BY
HAROLD E. WILSON

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Historical Account of the Lobster Canning Industry

By RICHARD H. WILLIAMS

It is intended in the following article to review in some historical degree the progress made in the development of the lobster canning industry. For ages the lobster had been considered as a renowned delicacy, and Athenaeus quotes Sophron as saying:

"Behold the dainty courides, my friend
And see these lobsters; see how red they are
And smooth and glossy are their hair and coats"

and says himself, referring to the older name "Astacus" (which was applicable to the crayfishes as well as lobsters):

"But passing our trifles buy an Astacus
Which has long hands and heavy, too, but feet
Of delicate smallness and which slowly walks
Over the earth's face. A goodly troop there are
Of such, and those of finest flavour where
The isles of Lipara do gem the ocean
And many be deep in the broad Hellespont"

Roman historians refer to the lobster in their Epicurean feasts, but the supply of this crustacean has vanished from all Mediterranean waters, and even crayfish are only to be found in a few places. The supplies from the Atlantic ocean between Morocco and Scandinavia furnished large quantities for the people of Western Europe, who considered the lobster an equal luxury, and they were so much sought for that by the seventeenth century the supply was found to be diminishing through over-fishing.

When lobsters were found to be so plentiful in Northeastern America it is easily understood that these luxurious fish food claimed the attention of the people on those coasts as soon as the possibilities of the tin can for hermetically preserving them was mooted and they were among the products that claimed the attention of the earliest American canners. The lobster, however, was always one of the most difficult to preserve satisfactorily, either when considered from a chemical standpoint or otherwise, but, nevertheless, it formed the material for the first canning industry of any magnitude in the Dominion of Canada. A review of the vicissitudes of such a business, coupled with the importance of the conservation of its supply, renders this particular industry worthy of study. While many of the lessons to be derived thereby would also be applicable to other lines of endeavour, naturally they become of more vital import to the people of Eastern Canada and Newfoundland where the canning of this crustacean still forms a source of revenue that has not been supplanted by other methods and to whom the preservation of a future supply is of paramount importance.

Preliminary, however, to glancing on the development of the lobster canning industry, it may be interesting to look for a moment at the evolution of the tin can, which has come to have so large a place in the modern packing of food stuffs. Whatever preservative methods existed in earlier days, it can truly be said that the tin can was one of the greatest factors of the world's progress during the nineteenth century. The tin can is hardly to be termed an invention. It is merely the development of a scientific discovery regarding the putrefying effect of air upon food stuffs. This can be traced backwards to the Italian

Renaissance, although it was likely acknowledged before that without the reasons for asserting it being properly deduced. Francesco Redi in 1660 attacked the old belief regarding spontaneous generation, after various experiments, that life can only develop from antecedent life, but he was charged with having controverted the scriptures, inasmuch as his views were not in accord with the religious version existing as to the swarm of bees discovered by Samson in the carcass of the lion he had slain. It was not until one hundred years later—that another Italian philosopher, Lazara Spallanzani, submitted his theories regarding animal and vegetable life and reproduction, whence a direct connection can be traced to subsequent ideas.

Napoleon, in his idealistic dreams regarding warfare, gave an impetus to the need for further consideration of preserving food-stuffs by declaring that "An army marches on its stomach", and with characteristic impetuosity in the later years of the eighteenth century offered a prize of 12,000 francs for "the best method of preserving fruit, vegetables, and other elementary articles without pickling or desiccation", and likely soon forgot it during the troublesome times that followed.

Benjamin Nicholas Marie Appert, a French scientist, philanthropist, and dreamer, did not forget. Aided by the work done by Spallanzani, he experimented, making practical applications with glass bottles, and therefrom propounded his theory of hermetical preservation, and submitted his monograph on the subject to the authorities. Some of the experiments and results obtained (as recorded by him) have never been known to have been duplicated by those who have since attempted them. It was about June, 1809, that the promised prize was awarded and the treatise published by the French Government. What happened to the prize is not known, but like many other awards for discoveries, possibly much of it was spent in obtaining patents in France.

England, too, took cognizance of Napoleon's ingenious saying and then realized (even if it had not done so before) that its Navy, of which it was already so proud, also "moved on its stomach," and being an island kingdom, with a large population, the progress and existence of the nation depended upon its physical sustenance. Its reserve supply of food in case of a siege would decide how long that could be made to last and the attack resisted before the nation could be reduced into submission by starvation.

In 1809, the same year in which Appert's monograph was published, a South Wales tin-plate worker (Durand?) hit upon the idea of a metal container for food-stuffs to exclude air and avoid putrefaction, and applied for a patent for a "tin canister." (The noun "can" is merely an abbreviation of "canister" and from it was coined the word "canning" now in general use.) The public was not much impressed with the idea but ship-store dealers, picklers and preservers grasped it with avidity. Appert's theory showed them the advisability of applying heat and many were induced to attempt it, but few were successful. Nevertheless, some important English firms trace their foundation to that period, and the increase in the manufacture of preserved food grew slowly but steadily from that time. To those who knew that certain fish foods were considered luxuries in Europe and that many of these, notably salmon, lobsters and oysters, were so abundant in Western Atlantic waters as to be locally considered almost worthless, their preservation in "tin canisters" conjured up visions of a new El Dorado; and the Americans, too, saw prospects of big fortunes. It is therefore not surprising to learn that one Ezra Daggert arrived in New York in 1815 and in association with Thomas Kensett obtained a site in that city, near where the Battery Park now stands, in which these three delicacies were packed into tins. Another report states that Peter Durand went there in 1818 and entered into partnership with Kensett, packing the same

foods into what became known as "plumb" cans. From the two statements, some infer that Daggert's operations not being entirely successful, the original inventor came over from England later to demonstrate the efficacy of his "process."

In 1825 Kensett applied for patents in the United States for "preserving animal, vegetable and other perishable foods," but these were not granted until about ten years later—the authorities evidently doubting their practicability.

Coeval with these was William Underwood, who after serving an apprenticeship in the trade of pickling and preserving in London, England, with the house of MacKay & Company, having left there in 1817 for New Orleans, reached Boston in 1819, where he eventually settled and did some bottling and canning.

It would be interesting to follow the story of the development of the food canning industries as they branched out from their original sources in Paris, London and New York to all sections of France, Britain and the United States and from thence into all other countries of the civilized world until canning reached its present universality. The task, however, would become too great for any brief review. Any attempt to claim specific national honours for the credit of its origin, development and results would perhaps involve discussions similar to those which have been heard regarding the winning of the recent European war, convincing only to each according to the viewpoint taken. It is sufficient to consider it as an evolution and not as a revolution and assign to each its share in the progress. While its benefits have been universal, too, possibly because of the position of its productiveness as related to its population, the Western hemisphere can be acknowledged to have gained most since the North American countries have been the principal producers and their people the greatest consumers and exporters of food in tins.

Kensett and Underwood may be claimed as pioneers in the canning industry in America. Their successors remain in the business to this day. Around the former has grown up that wonderful development in this trade in Baltimore and the South, and from the latter a great business in Maine and the Northern States, and from each can be traced a continued expansion in all directions.

The preservation of certain lines of food-stuffs has been comparatively easy, while others have presented very difficult problems to operators. It needs to be borne in mind that most of the scientific knowledge during the nineteenth century was based upon "chemical actions." Many who believed themselves possessed of wonderful trade secrets were, after all, much akin to the Medicine Man of the Red Indians and the Mystery Man of other nations. Their "knowledge" oft proclaimed their ignorance. They talked of a "vacuum" that they did not understand. Their troubles were generally attributed to chemical agencies, but in the last quarter of the nineteenth century Koch, Pasteur and others proved that micro-organisms were more responsible for the difficulties than all else. Bacteriology has supplanted chemistry to a very great extent. However, the processing of goods was done in early years with much success, and in evidence of this it is recalled that canned foods left in an Arctic cache by Captain Parry in 1824 were subsequently discovered, and at a dinner in Hull, England, in 1911, a number of scientists partook of soup, roast beef, roast veal, turnips, carrots and jam obtained from these tins—nothing on the table being less than ninety years old. This constitutes proof that good progress in canning had been made in Britain by 1820.

After Professor Tyndall published his essays on "Floating Matter in the Air" (1881), the progress of the "tin can" became very rapid and the scope of its usefulness widened. Quality has become a scientific fact and not merely the effect of a "lucky chance." To-day the "tin can" is found in every home as a labour saver and shows the preparedness of the housewife against contingencies that would otherwise cause confusion. Cans bring a variety of foods

within reach of the artisan that formerly none but princes could enjoy. At sea the sailors need fear no scurvy now. The Torrid and Frigid zones have lost much of their terror. In summer and winter the same food can be enjoyed. Travel by air, land and sea entails no hardships, and the doctor's prescriptions for calories and vitamins are being measured out of food in tin cans with an exactness hitherto impossible. Every worth-while product has the whole world for its market and the trade figures of nearly every nation have been benefited by this wonderful leveller of costs. Its share in the feeding of millions of soldiers and sailors daily during the World War from 1914 to 1918 has established for it a record of which its producers and all interested in the canning industry may be justly proud.

EARLY AMERICAN CANNERS

It is said that lobster fishing started in the vicinity of Cape Cod and among the Elizabeth Islands on the coast of Connecticut early in the last century for consumption fresh in those localities, but after the first canning experiments made in 1815 and 1818 by Kensett and Durand in New York, and the bottling done by Underwood in Boston about the same time, not much is known except that Underwood in 1836 was packing lobsters into quart size glass jars that were being sold at \$4.50 per dozen. It is stated that Charles Mitchell, a Scotsman, arrived in Halifax, Nova Scotia, about 1840 from Aberdeen, where he had been making "tin cans" for packers there and was well acquainted with the lobster industry on that part of the British coast. He is reported to have entered into a partnership with one McPherson and they erected the first "factory" of this kind at Liverpool, Nova Scotia, in 1841. At the same time some Maine people headed by Upham S. Treat, of Eastport, were directing their attention to canned goods and had packed some salmon in tins at Saint John, New Brunswick, in 1839. In 1840 Treat became associated with a Mr. Noble, of Calais, Maine, and Tristram Holliday, a native of Scotland, under the firm name of Treat, Noble and Holliday. In 1842 the firm was established at Eastport, and began experimenting with lobsters, but was not successful. Limited capital, crude appliances, poor cans and insufficient knowledge of extruding the air and bathing the cans were blamed for the failure.

In 1843 Charles Mitchell, who was residing at Halifax and whose earlier work had apparently been successful, was engaged by the firm, after which no quality troubles were encountered, though it was difficult to find markets for the product.

Samuel Rummery, of West Lubec, Maine, entered the employ of the firm about this time, and learned the "secrets" of canning. In 1845 Treat withdrew from the firm and the Eastport business was conducted under the name of Mitchell & Noble with W. K. Lewis & Brothers as agents. Lewis had learned the business in the employ of Underwood and in 1833 had been taken into partnership, but left in 1837 and founded the house of W. & W. K. Lewis (which later became W. K. Lewis & Brothers).

The previous year (1844) William Underwood had erected his first lobster factory at Harpswell, Maine, and now W. K. Lewis & Brothers built their establishment at Portland, with Rummery entering the firm, along with George F. Lewis and George Burnham.

In 1847 Mitchell & Noble sold their cannery to Underwood, a clause in the contract stipulating that Mr. Mitchell should remain at Eastport to superintend operations.

John Mitchell, a son of Charles Mitchell, after working in canneries all along the coast, was later manager of the Portland Packing Company's cannery at Grand Manan, New Brunswick.

In 1850 three canneries, two belonging to Underwood and one to Lewis, were the only ones in the United States.

At the outset the Eastport cannery would not accept lobsters under two pounds in weight. They were packed into one-pound cans which sold at five cents each, and it was estimated that $3\frac{1}{2}$ pounds of live lobsters were required to fill a tin. Some two-pound cans were also packed, but that size never became popular.

In 1852 Rummery & Burnham went into business for themselves, erecting a cannery at South Harpswell and the present Burnham & Morrill Company are their successors.

In 1856 J. Winslow Jones, who is said to have been in the employ of one of these concerns, started business for his own account and as his employees learned the business they, in turn, branched out for themselves. (The Winslow family with which he was connected became interested in the business and some members of it were among the pioneers of salmon canning on the Pacific coast).

At that time the supply in the vicinity of the larger cities had already shown signs of decline and the factories, becoming numerous, drifted eastward towards the more fertile fields. During the Civil War in the United States, many of these canners packed other goods besides lobsters with considerable profit and after its close some of them crossed into Canadian waters for their supply of lobsters. In the late sixties and early seventies this Canadian migration of companies and their late employees assumed important magnitude.

EARLY CANADIAN ENTERPRISES

Meanwhile in Canada there had been spasmodic attempts at canning lobsters. John E. Ritchie and John Beeler are reported to have been the first who tried it in Yarmouth. A. C. White (a native of Haverill, Massachusetts), in conjunction with a local tinsmith named Whidden succeeded them, but judging from an "Account of Sale" still extant, dated 1849, W. H. Dudman, general merchant in that town, bought from Whidden & White, 100 cases lobsters—1 pound Talls—at one shilling per case, which were returned from London, and marked "No Sale," the quality was evidently not very desirable.

White went eastward in Nova Scotia and in 1851 was packing at Port Mouton, while Payzant & Knaut were concurrently operating at Liverpool. Octave Payzant, of this firm, was a tinsmith and the father of Freeman Payzant, the first mayor of Lockeport, Nova Scotia, who successfully operated a cannery there for many years.

Frank H. White, a son of A. C. White, caught lobsters at Port Mouton as a boy of 15 or 16. He went to Maine later where he was employed by Lewis, who sent him again to Nova Scotia when they erected lobster factories in the eastern part of the province. Leaving Lewis he entered Winslow Jones' employ when canning was begun by that firm on the Magdalen Islands and later managed a Prince Edward Island plant for many years. A brother of his is said to have gone with the Portland Packing Company and was with them at Canso for a long period.

About 1856 John Kendrick packed some lobsters in tins at Shag Harbour, Shelburne county, Nova Scotia. In various parts of the province there are records of similar attempts but little material progress.

It was not until from 1864 to 1870 that the Maine and Massachusetts packers extended their operations into Nova Scotia. Among the earliest of these was the firm of W. K. Lewis & Brothers, who built a factory at Sambro, near Halifax. Some affirm that this factory was erected in 1864. As an example of the manner in which many of these factories have changed hands it may be

shown that the Sambro factory was operated later by I. B. Hamblen, who had previously been packing in Maine. (One of the employees, Andrew D. Hopgood, had left him about 1863 going to California, and became one of the first salmon canners on the Pacific coast.) Hamblen took Benjamin Baker (a native of Massachusetts) into a partnership as Hamblen, Baker & Company, and they built some additional factories in the same vicinity. These factories were then taken over by Franklin H. Baker (son of Ben Baker), who operated these plants and opened others. In 1873 the Sambro property was sold to Charles E. Smith, of that village. Subsequently, this and some of the others passed through the hands of Gray Brothers & Company, M. Neville, Nova Canneries, Neville Canneries, South Shore Packers, Limited, and the Sambro buildings have once more reverted to Charles E. Smith. The branches from Sambro were erected at Peggy's Cove, Terrance Bay, Lunenburg, Ship Harbour, Petpeswick, Jeddore, etc., but many have since disappeared.

A. B. Chamberlain (a brother-in-law to F. H. Baker) built one of the first canneries in Cape Breton at Fourchu, and Baker's sons—one of whom took over that factory—operated extensively in other parts of that island and in Newfoundland.

The Lewis firm drifted with their canneries eastward in Nova Scotia as far as Richmond county.

William Underwood & Company came early into New Brunswick on the Bay of Fundy coast, as did Burnham & Morrill. Both retained their interests there until lobster canning was discontinued in that section in 1895.

The Burnham & Morrill Company were at one time the largest operators in Halifax and Guysborough counties and branched thence to Cape Breton and the Northumberland Straits, where they still operate.

S. S. Forrest, a Scotsman, who was one of the Burnham & Morrill Company employees, started business in Prince Edward Island in 1877, and later at Newfoundland, and is considered to have been one of the most successful lobster packers of his day.

The Portland Packing Company, as successors to Davis Baxter & Company, starting from Little Harbour in Yarmouth county, and following eastward along the coasts of Shelburne and Lunenburg counties, have had canneries in all the Maritime Provinces and in Quebec and Newfoundland, but concentrate their present efforts to secure lobsters almost entirely at Prince Edward Island.

Winslow Jones had interests in New Brunswick, Quebec and Nova Scotia, and was the first to establish canneries on the Magdalen Islands.

Hoegg and Walker, or D. W. Hoegg & Company, succeeded Jones in the Bay Chaleur district and J. B. Webb & Company (later H. F. Webb), on the Magdalens.

Others from the States who had factories did considerable business in the provinces, among whom may be mentioned Andrews (from Essex, Massachusetts), Wyman (of Millbridge, Maine), the Forhans (of Portland), the Baxters (of Brunswick, Maine), Pickert (of Boston), as well as Ira E. Foster, Mitchell, Hitchens & Company, Shedd More & Company, and others of American extraction.

In 1872 there were about 44 lobster canneries in Canada, most of them operated by five New England concerns. By 1880 the canneries in Maine and Massachusetts had dwindled to twenty or twenty-three, but the Canadian establishments numbered about 200, and two-fifths of their valuation was owned or controlled by United States firms. By 1895 all canning had ceased in the States, but the number of Canadian canneries had grown to nearly 650, reaching its zenith in 1900 with over 900 plants, when the so-called American domination of this Canadian industry disappeared.

These records show that much of the lobster business can be traced to the influence of William Underwood's ventures in preserving this food product, since many of his employees branched out for themselves and theirs, in turn, did likewise. It is equally interesting, too, to notice how much of the success obtained appears to have rested upon the methods introduced by Charles Mitchell and his experiences gained in the old and new Scotlands. Much seems to have depended upon learning Mitchell's "secrets" and the degree to which these were learned. Looking backwards it can be seen, however, how little even those in possession of the "Magic Secret" really knew regarding the chief essentials in preserving lobsters. Knowing little of biology and nothing about the existence of bacteria, they flaunted a supposed "practical knowledge" that in the light of what has since been learnt only proclaimed their ignorance. They processed their goods so mysteriously in baths for from six to eight hours because they did not know that other means were possible whereby their sterilization could have been accomplished in one-fourth of the time.

Many of the persons already named were keen, practical and far-sighted men. After acquiring rudimentary information, they realized quickly that still more remained to be learned. They saw many reasons for failure and tried to overcome them. They viewed success and grasped it. Others, however, vaunting that mysterious knowledge only endeavoured to capitalize it and did considerable harm.

"Oh, what a tangled web we weave
When first we practice to deceive"

and many of the difficulties encountered by the trade since are traceable to their perverted notions and deceptions.

OTHER EARLY CANNERS

The growth of the Canadian lobster canneries was rapid from 1873, when a clash between the industry and fishery officials occurred that kindled a sentiment against the so-called American packers, placing them in a separate category to resident operators, in which they remained until the investigations of 1909.

The number of people who ventured into the business was large, but for many reasons the majority did not remain in it long, and were constantly being ousted or supplanted by newcomers. A review of the conditions and personnel would be easier if divided into provincial or even smaller sections. It can be said that almost each county possesses some peculiarities which do not prevail elsewhere. Briefly, three classes predominated among the early venturers: (a) Tinsmiths—who considered the cans as the chief essential, and their ability to make them the most necessary qualifications; (b) Ex-employees from other factories, who having obtained the "secrets of processing" thought themselves possessed of sufficient knowledge; and (c) Coastal and village store-keepers who were jealous of all invaders and wished, above all else, to retain their local supremacy. Many of these ventured into the business and most of them tasted bitter experiences. This does not apply to all, and if sectional reviews were attempted they could be divided and the reviews would likely prove of more local interest, and the lessons of the past be better available for those sections; still, while applying more especially to those districts, they would be in most cases applicable to the whole industry.

The names of Cann, Bates, McDonnell, Shand, Clements, Mulhall, Power, Redden, Christian and Devlin will suggest others to any who remember conditions in western Nova Scotia fifty years ago. Those of Ogden, Stayner, Gould, Maskell, Hemlow, Leslie, etc., will recall the memory of others in eastern Nova Scotia. McFadyen, Cook, Hooper, Curry, Cesale, Mauger, Taylor, Burke, and

Dawson can be added to a list of Cape Breton pioneers; while Lantz, Morgan, McInnes, Smyth, McKay, McLellan, Hogg, Craig, and McLure were among early packers in the Northumberland Straits. In New Brunswick such names as Windsor, O'Leary and Loggie have remained prominent in the industry for half a century. McGregor, DesBrisay, Snowball, Brown, Bishop, Haddow, Poirier, Young, Burbidge and Fleigher would form a partial list of those remembered in the northern parts; while Bourgeois, Noble, Kimball, Gogain, LeBlanc, Trenholm and others were at one time important elements in Kent and Westmorland counties.

Prince Edward Island furnishes a unique history of its own as to trials and progress in lobster canning, although but few of its pioneers can be mentioned here: Davies, Cairns, Waddell, Haley, Prowse, Carlton, Macdonald, Morrow, Munn, etc., in the east; Bell, Bennett, Bulyea, Agnew, Clark, Doucette, Larkin, McNutt and others in the west; Halliday, Mabe, Jessop may be suggested for the Gaspé Coast, and Leslie, McPhail, Delaney, Dingwall and Arsenault can be named among the first local factors in the Magdalen Islands.

The adventures in lobster packing on Anticosti, prior to the island's acquisition by Menier, and the various enterprises to the Labrador coast, would furnish some romantic stories, instancing Stubbart, Stacey, Innes, Hemeon, McMillan, McQuinn, Howard, Harding, and others.

It is not intended that such lists as these should be considered to be complete. Many provincial readers can probably supplement them with others and add considerable information for use. Similarly, in Newfoundland a number of Maritime Province people have conducted extensive packing operations within the last forty years, and that island dominion has a history and experience of its own worthy of much attention.

A list of English firms who used to act as consignees of the product, selling to the trade, would include, in addition to some still in the business, names that were prominent in early days such as Carvell, Pitcairn, Thompson, Blake, Latham, Jamieson, Chisholm and Kidston, and among the buyers in Halifax, besides some still continuing, Pitts, Hutchins, Wurzburg, Peters, Rogers and Ritchie might be added.

The various ways in which lobsters were handled and packed, the styles and sizes of cans used, market conditions, selling methods, and the various improvements sought and attained from time to time, could be tabulated, and a collection of such facts and figures still obtainable from the past, would render good service for the future.

EARLY METHODS OF LOBSTERING

At the outset lobsters were caught along the American coasts by gaffing or spearing them among the rocks in shallow water. The stories extant regarding the large quantities thus caught provide proof of their abundance in early days. This method of fishing continued as a night frolic in Canada, wherever lobsters were in fairly good supply. Much of it was done by torchlight on calm evenings. When done in the daytime the fishermen would put oil upon the surface of the water to make it "slick," then throw a cod-head, or some other attractive bait to the bottom, so that when the lobsters gathered around it they were speared.

The creel or cage as used by the fishermen of Europe was considered very efficient and best adaptable for fishing in deeper water or for catching lobsters for sale, buyers naturally preferring to receive them un mutilated.

Hoop nets came into vogue early. These were first made from the rims of discarded cart-wheels, across which some netting was stretched and a quantity of bait fastened in the middle of the net, with four strings or ropes attached whereby the contrivance could be lowered into or raised from the sea. Enticed

by the bait, the lobsters would crawl on to the netting and when hauled up the catch would be taken away by the fishermen who would then lower the net again and return later to raise it and secure a further supply. Such nets were only practical for shallow waters where usually most of the smaller lobsters abounded. They were popular with the fishermen, especially while they were selling their lobsters to canners by count and not by weight. For the same reason they were not regarded favourably by the canners until their method of buying was changed on to a per pound basis. Old wagon-wheels were not plentiful enough to meet the demand when canning became general, so wood that could easily be bent into circular form was used. These became known in some sections as "curlies" and one boat (or two fishermen) could operate from twenty-five to thirty of these attached to a trawl. "Curly-fishing" was soon condemned as being particularly destructive for small lobsters, but was retained on the shores of Bonaventure and Gaspé counties (Quebec) until officially prohibited in 1894, though it was not wholly discontinued in every section until nearly fifteen years later.

The lobster-trap, or cage, made of laths, which is in general use now, is said to have been contrived by fishermen in the vicinity of Cape Cod (Massachusetts) as early as 1810; their chief advantage being that they were larger and would hold more lobsters than the old style creel and prove more economical. Specimens procured at Gloucester in 1851 were sent to Nova Scotia, but were not considered there as good as the "old pots" (similar to those made in England). A lath cage of this kind washed ashore at Cape Island ten or fifteen years later was considered by the fishermen there as a strange novelty and mistaken for some kind of salmon trap. The Maine packers when they came into Canada brought supplies of these traps with them which were "rented" to the fishermen, or else the fishermen were hired to use them in catching lobsters for the canner. Eventually they displaced the other methods, the local fishermen soon made their own more cheaply than the imported varieties, while enterprising men devised new entrances and chambers for the lobsters and at the same time reduced the outlets as much as possible. These contraptions became known as bedroom, parlour and jail traps, and others that followed were called double headers, three headers or four headers, according to the inlets provided. Later again, wheeler traps, diamond traps and others took their names from the inventor or the shape. Standard traps have often been suggested, and even prescribed by law, but the inspection of these on all parts of the coast and at all times has ever been deemed an impossibility. Neither will any regulation of this nature likely prove feasible until the fishermen can be induced to adopt and maintain the standard for and among themselves.

The bait used from time to time has varied considerably. Codheads, skate, and otherwise unsaleable fish are cheaper, but herring is usually the favourite and a large business has been worked up for supplying herring bait to packers and fishermen. A difference of opinion as to the most desirable quality of the article for baiting purposes is not even settled yet. Some claim that the bait must reach a special stage of decomposition in order to be a satisfactory lure for the lobsters. Some find that certain articles used as bait when eaten by the lobster affect its condition when caught and its meat when boiled. Some affirm that this crustacean is allured by the sight of the bait, others say by the smell, while others again will accredit it with some "sixth sense" that explains the attraction.

Much discussion among the operatives has turned on the merits or demerits of having the traps set upon a trawl versus individual trap fishing where each cage has its own rope and buoy. Conditions differ so much in the various districts that this question seems to hinge more upon local characteristics than

otherwise. The fishermen on one part of the coast have hitherto neglected consideration of the methods used elsewhere, but by interchange of ideas that can be suggested now that federations of fishermen exist in several places, and co-operative lobster fishing organizations elsewhere, some benefits would probably accrue, just as in the same way the canners in one province can mutually assist each other by exchanging notes as to packing methods.

CONSERVATION OF LOBSTERS

As early as 1686 Sweden realized that the overfishing of lobsters threatened to deplete the supply and made regulations with a view of conserving it. Britain and France also noticed a growing scarcity, but did not legislate until much later. When Buffon, the French scientist, recorded that he had counted some thousands of small lobsters being hatched by each mother and when Kalm, the Swedish traveller, referred to the great abundance of lobsters off Long Island in 1771, the people of America could not imagine the possibility of such depletions as were said to have occurred elsewhere. Mutiplications will easily produce marvellous figures, but sums of division will again render them of little avail. A statistician by using multiples can show how lobsters so frequently and profusely reproduce themselves and prove that within a few years even the ocean would hardly be able to contain them, just as some have calculated (somewhat humorously) that the rotating development of chickens and eggs could cover the earth four feet deep with hens in a given period.

It has to be remembered that nature possesses certain division tables of her own that preserve the equilibrium of her supply. Frequently, then, the destructiveness of man, in conjunction with those natural deductions, has upset the balance and exterminated the species in many places.

In the case of lobsters it is not the quantity that has been commercially used to advantage which has caused the noticeable diminution in the supply, but that which has been wasted. To the fishing done during moulting periods (when the shells are cast and the meat is in pulpy condition), and to the wilful destruction of spawn-lobsters (or females carrying maturing eggs), must in a great degree, be attributed the shortage that has been experienced.

The world suffers from the misuse of its commodities more than from their use, and, more than anything else, the wanton destruction of sea-food in the past has created deficits now evident in American waters.

Within twenty-five years after lobster canning was begun in the United States the supply had been most seriously depleted, and warnings regarding the lobster's extinction were raised, until the governments of the New England States were forced to consider regulations for its conservation. Unfortunately "canning" both there and elsewhere has always been blamed for all shortages.

Provincial records prior to Confederation in Canada lack material statistics regarding the lobster and its canning industry, although it is possible that there are some hidden facts yet to be gleaned from these sources. It is evident, however, that the question of conserving a future supply of lobsters was never considered. No one believed that this crustacean could be overfished or become scarce. When considered at all it was usually classified as "fish." Its export was generally covered under that category. Canning operations were carried on without restriction or supervision. They were "unhampered" with any pure food laws. "Packing establishments" (as they were then more properly called than since when, in common parlance, they later became "factories"), were built or removed without anything but a local interest displayed thereat. New Englanders who came to New Brunswick or Nova Scotia were considered by some merely as part of an old Reciprocity Pact that had existed and were welcomed by others because they brought some "new money" to the coastal popu-

lation. Even after Confederation the figures of the lobster catch were hardly thought worthy of being tabulated in the fishery reports. In the first two Annual Reports of the Department of Marine and Fisheries no mention of lobsters appears. It was not until the shortage of the supply in New England waters was officially recognized that Canada began to regard the lobster as one of its valuable marine assets. This realization apparently came upon Ottawa officialdom with a suddenness that found it unprepared to do more than merely attempt to follow methods suggested by the people of Maine to meet their own conditions and with a view of conserving their own supply. It is easy, of course, after a space of over fifty years, to criticize the actions of a department in 1873, but it can be seen that the different conditions that existed in the Canadian provinces then as compared with those in New England were not fully recognized. Such restrictions as were thus proposed were very unpopular with both cannery and fishermen. The operators induced political interference and even when modified the regulations were then respected in the breach rather than in the observance. The need of restriction was not realized by the general public and no favourable spirit prevailed on the subject. It is felt that many subsequent difficulties can be traced to the unfortunate actions of those days. All lobster regulations became controversial, and to some extent they still continue so, and none of them up to the end of the last century can be said to have been allowed a proper test of their efficiency. Obnoxious size limits have since been modified, but even within the last decade prescribed close seasons have not been observed everywhere, though the necessity for them is now universally acknowledged. The trade generally feels that the season in vogue for the various sections, coupled with the preservation of spawn lobsters, are sufficient to successfully cope with the question of conservation, and that if a general observance for some years can be procured then satisfactory proof of this would be forthcoming.

BRANDS AND LABELS FOR CANNED LOBSTERS

When lobsters were first packed in tins many operators and dealers gave more attention to the label placed on the outside than to the quality of the lobsters put inside the cans. The contents of an inferior pack often destroyed the value of an artistic label, and many a poor label was saved by the reputation of a good pack. Many a packer destroyed his own reputation by having his name on tins with poor contents and few there were who retained their good name when they purchased, packed, or mixed inferior goods. It soon became almost an established rule to substitute names of imaginary companies for those of the real packers. Generally, cannery would adopt the style of a packing company named from the village or district in which the cannery was situated and so long as the quality remained unimproved the reputation of these districts and place-names suffered in the same way. The lobsters of some sections were soon considered unsuitable for canning purposes and a certain prejudice against some districts still continues to prevail, chiefly on account of the poorness or irregularity of the goods that have been produced. Frequently the lobsters themselves have had to accept the blame for the carelessness and ignorance of fishermen and packers who handled them.

Then followed more new names. Fictitious district and geographical names came into vogue. A collection of old labels shows the practice of much ingenuity in this way.

To the consumer the brand name was generally more important than that of the canner's firm or packing company, and despite the many earlier difficulties experienced by the trade there are some of these brands that have withstood the vicissitudes of forty or fifty years without much injury and are still popular in British and American markets. The number of brands that have

been used is naturally large and varied. The registrations of such trade marks in the different countries for canned lobster brands, though quite numerous, represent only a small portion of the names that have appeared on packers' and sellers' labels. Among early brands many were based upon local or national characteristics and possibly the favourites of these would be Fishermen, Indians, Wigwams, Beavers, Cariboo, Eagles, Maple Leaves, and Mayflowers. When describing the contents the word "lobster" was seldom thought to be sufficient. The favourite adjective was "fresh" and some supplemented that as "fresh canned", "fresh preserved" or "fresh selected", others as "fresh bay", "fresh rock", "fresh gulf", "fresh ocean", or "fresh northern", and still others as "choice", "extra quality", "highest grade", "superior fresh", and so on. Some used geographical adjectives such as "Canadian", "Nova Scotian", "New Brunswick", "P. E. I.", "Magdalen Islands", "Newfoundland", "Atlantic Coast", "Gulf of St. Lawrence", and "Labrador", although many dealers used such labels regardless of the origin of the goods so branded. Again, many confined description into narrower limits, as Pleasant Bay, Baie Chaleur, Richibucto Bay, Rocky Bay, Narraguagus Bay, Block Island, Gaspé Rocks, Perce Rock, Bird Rock, South Shore, North Sea, Machias Bay, Grand Canon and Oyster Bed Cove, that tended to confuse buyers, and some of the place names so used would be hard to discover in any Canadian gazetteer. On one of the "Oyster Bed Cove Lobster" labels was shown the picture of "A Sagacious Lobster" eating an oyster, and a story describing the experience of one, Paddy McCormick, who, observing some lobsters, saw one with a pebble in its claw waiting for an oyster to open its shell when it would pounce upon the poor creature and deposit the pebble so that it became impossible to close the shell again, after which the lobster inserted one of its "feelers" (antennae) and dragged the victim out therewith in order to devour it. Whether the story is true or not may be left for biological students to discuss, but it is doubtful if the story given on the label helped in any way to increase the sale of that particular brand, or any other.

At first it seemed necessary to submit on all such labels a number of cookery recipes for making lobster salads, curries, balls, stews, a la carte and fricassee. They were generally given in both English and French, and sometimes a German translation was added. The need for these soon disappeared, though recipes for salads and stews were continued by certain packers for many years.

When a brand became popular it was often adopted by other producers, or if it had been protected as a trade mark some like label with a very similar design was tried. A Crown brand found its rival in a Matchless Crown, Silver Crown, Golden Crown, etc. A Star brand suggested Golden Star, Silver Star, Red Star, White Star and such like. An English concern doing business on Redcross street in one of the larger cities in Britain adopted a Red Cross brand, but several others pirated it immediately. Similarly a Bell brand became popular for a while, but later fell into disrepute (in some places) from the bad qualities that other cannery brands with the same name. Few brands totally escaped such piracy and packers' brands became so unpopular (with very few exceptions) that foreign buyers preferred to buy the goods unlabelled and established their own standards of quality under their own trade marks. This custom of shipping unlabelled goods is still in vogue.

Possibly the most interesting labels used by any Canadian lobster packer or exporter were those that became known as the Scripture brand. One of the largest shippers about 1880 apparently belonged to a sect that published books on its own views of the Bible and religious subjects, and in order to advertise them he printed a list of these publications with prices, etc., upon his lobster labels and had the same covered with extracts therefrom. In the centre of some

of these were printed "Celestial Secrets", "Keys to all Bible and Man Problems", "The Truth of the Apocalypse" and "Heaven and Hell" "for 13.50." Various Scripture texts or messages were printed around the margins, such as "Believe you have received and you shall have it", "By their fruits ye shall know them", and others that some sacrilegiously applied to the contents of the tins. Another label illustrated by pictures represented "The Lobster after the fishes, the Can after him, all sensible people after... 's Brand and the Do-evil after all", while still another had an article over more than half the label entitled "Adam and Eve Solved at Last". In some of these goods the lobsters were of good quality and "Scripture Lobsters" were for a time very popular in Canadian markets.

For years now in America and Europe original packers' names are seldom seen on lobster tins. In other lines of canning the large packing concerns are insisting more and more upon the use of their own labels, and for goods in which there is a consolidation or co-operation of interests it is good advertising and is meeting with success. There is much to favour the insistence on original packers' names on tins in order to carry a guarantee direct from producer to consumer, but in the present divided state of the lobster industry, with its multiplicity of small canneries, the value of the guarantee is lessened and its enforcement is complicated. Other canned goods are subjected to a government inspection, and it is believed that an official method of branding and labelling lobsters will have to be adopted, which will impress the packer with his responsibility and carry with it a direct guarantee to the consumer.

SHIPMENTS OF LOBSTERS IN SHELL TO THE UNITED STATES

What has become generally known as the Live Lobster Industry on this continent is of fairly recent origin. It commenced in a purely local way around the towns and cities along the North Atlantic coast. In New York city the demand first showed signs of the lobster's popularity, and by the same token it was in its nearby waters that the scarcity of this crustacean became noticeable earliest in the United States. Boston, Portland and others of the larger coastal cities in New England had a good local demand early in the nineteenth century before the problem of carrying lobsters over long distances had to be seriously considered. As the local supply lessened and the demand increased the fish dealers in New York looked farther afield and considered the question of obtaining larger and cheaper supplies from Boston. Boston, in turn, went farther abroad for its needs. Portland, however, had an advantage in being nearer to the larger producing waters, even though Boston was closer to the greater consuming areas. As transportation facilities improved, both then expanded and competed keenly for trade in more distant markets. Both have continued as important suppliers of lobsters in shell. While canning was prosecuted in Maine near the international boundary line, the fishermen of New Brunswick, unhampered by any duty restrictions, often found it advantageous to sell and ship their lobster catches to that state. Men in Charlotte county (New Brunswick) can be considered as the first Canadian exporters of live lobsters, especially as some of the larger sizes were not canned but found their way in shell to New England consumers.

It has been claimed that the first attempt to ship lobsters alive from Nova Scotia to Boston was made by Captain Job A. Crowell, of Clarke's harbour, about 1872 when he carried about four barrels of lobsters with fair success in his schooner on a trip to that port. Small shipments were begun to be made from Yarmouth by the steamer *Dominion* in 1878, though not always with success. During the spring lobsters were always plentiful in those markets, but in the heat of summer and in the moulting periods these shipments were not feasible. In the early fall, however, fishing and shipping were again possible,

but winter storms when they arrived would once more curtail supplies. Prices thus changed often and the fluctuations were great. In 1875 J. A. Young, of Boston, erected the first lobster storage pound in Maine so as to have supplies on hand at all seasons. Well-smacks were introduced to carry these lobsters from the pounds to the distributing centres. By 1898 there were eight other pounds of the same kind established in that state. In 1913 the number had increased to over twenty and by to-day the total is even greater. No pounds exist in other states. The reason given for this latter condition is that the rise and fall of the tides to the southward is not great enough for the required ebb and flow. Even in Maine the best pounds are confined within a restricted area because the stronger tides to the northward are too great for any easily constructed docks.

One of the first American lobster smacks to visit Clarke's harbour (Nova Scotia) was commanded by Captain Condon, who offered two cents for the large sizes while the local cannery could only afford to pay sixty-five cents per hundred, large and small; and another, about 1875, was *The Pride of the Port* (Captain Parsons), when the captain paid three cents each for lobsters over 10½ inches long in competition with the factory price that was then \$1.60 per hundred for all over 9 inches long. (A comparison of prices paid for canning purposes is not always possible. At some places traps were owned by the canneries; elsewhere they supplied bait, etc., free. When lobsters were caught with packers' traps or bait, complications ensued if the fishermen sold the large ones to other dealers. Considerable friction arose between canners and buyers of fresh lobsters in that way.)

James W. Gordon, of Yarmouth, was among the first to originate a regular live lobster export business there about 1878, beginning in a small way. H. Bradford Cann, J. Nelson Gardner, and other Yarmouth people began to interest themselves in the same way four or five years later. In 1882 the first extensive local enterprise was that of the Arcadia Lobster Company (Yarmouth county), who were said to have built a well-smack in order to convey lobsters to the Boston market. The Yarmouth Lobster Company—in some way connected to the Arcadia Company—built the *Electra* in 1887 so as to get lobsters across the bay to Boston within seventeen hours. Small steamers were employed along the Nova Scotia coast for collecting lobsters. The first was probably the *Yuba*, 1878, followed by the *Island Gem*, 1883, *Ralph E. S.*, 1886, and many others in succession, but they were not large enough to cross to the American side, although the *Bessie Williams* and *I. B. Hamblen* made many trips later.

A number of commission houses soon arose in Boston which solicited consignments of lobsters in shell from the fishermen. At that period the price of lobsters for canning purposes was so low that the possibility of getting as high as five cents per pound for the large ones shipped in shell was a great inducement. Frequently, however, a glut of shipments so affected prices that even at these seemingly low levels the losses experienced were often serious. At times the competition in Boston between dealers and commission men was intense. When lobsters were scarce the dealers there also treated direct with fishermen, hoping to save payments of commissions thereby, and some commission men would forego their charges in order to compete. When the lobsters were plentiful, however, the competition would disappear and unscrupulous consignees would recoup themselves for their previous losses at the shippers' expense. So many commission men and dealers were engaged in this business eventually that there was not room for all. Many failed and left the fishermen without any funds, or remitted cheques that proved worthless. Some decamped. Others started again next season under a new name looking once more for the unwary shippers. Many fishermen were deluded and a favourite expression was often repeated that "A new crop of fools can be found every year." The ethical standard in this business was low for many years.

Most early shipments went forward in barrels, but because of their easier storage, crates were preferred by the steamship companies and were eventually favoured by shippers. When carelessly handled they were not as successful as the barrels but when kept flat, with their covers uppermost, the weight of the lobsters upon each other lessened and they reached destinations in better condition. Barrels were not returnable, but crates were and since no return freight was charged proved more economical. The steamship companies assumed no responsibility for these crates and consequently among certain dishonest people much trafficking in stolen crates became for years a source of serious trouble to Canadian shippers. A standard size of crate was designed by Thomas Poole, of Yarmouth, to contain 140 pounds net weight of live lobsters, but although it was adopted widely and approved of by transportation concerns even after a lapse of forty years the standard crate can hardly be said to have been thoroughly established. Some of the shipping companies have to wrestle with this problem wherever a per crate rate of freight continues to exist. The weight contents vary so that while some shippers put 100 lobsters, or 140 pounds, in each others endeavour to make them so as to hold over 200 pounds, though when returns come in this is frequently found to be poor economy. For statistical purposes barrels are usually reckoned as 100 pounds each and crates at 200 pounds, but for the actual average net weight of contents these appear excessive.

The Commission of 1887 referred to shipments in shell as a new and promising industry. The evidence at the time would point to \$15,000 worth having been shipped from Yarmouth in that year and 60,000 lobsters from Halifax, but none from other Nova Scotia sections. These might be fairly reckoned at about 4,200 hundredweights, whereas the fishery returns for the same year place the total shipments from Nova Scotia alone as 108,000 hundredweights along with 73,000 hundredweights from New Brunswick. It was not thought then that Canadian shipments would be possible only from western Nova Scotia and from Charlotte and Saint John counties in New Brunswick. The trade has grown but owing to an inflation of early government figures the business of shipments in shell to-day is statistically but 25 per cent of what it used to be. As time progressed attempts were made to ship live lobsters to Boston from the Bay Chaleur and other parts of New Brunswick and most of the first trials failed. Shipments made by Plant Line steamers from Halifax sometimes turned out well. When warmer weather approached, or glutted markets prevailed, serious losses were encountered and yet when later these steamers called at Hawkesbury on their way from Charlottetown to Boston large shipments were made from there. The gambling element appealed to many, even though the results were often less than what they would have obtained by selling to the canneries. In those days the business both in the United States and Canada merely "blundered" on because few shippers were able to calculate with any degree of exactitude the relative merits of these shipments to compare them with prices then current for packing purposes. The American trade has since been organized by associations of various kinds. Some proved unsuccessful owing to individual greed and lack of confidence. The general tone has improved within the last twenty years, but there is still room for further improvement in some quarters just as there still remains such room among Canadian producers and shippers.

Generally, the producing end of a business is the principal factor in establishing cost and value. The Canadian shippers being divided into small units rob themselves of a control that proper organization would render possible. Some believe that possibly a better solution may present itself by some federation between the Canadians and their American cousins for the benefit of all concerned. If pounds be possible in Canada at points where the tides render them

practicable the shipments from this country should not be confined to the fishing season but supplies should be available for shipment throughout the year and better results obtainable, but here again the need of unity between fishermen and the local dealers is seen to be required. Admittedly, the increase in shipments in shell is bound to continue. The canning industry, being allied to that business, provides a degree of protection in taking care of surpluses and obtaining a salvage on any injured or weak and in this respect Canadian fishermen have a stronger position than their fellows in the States. In Canadian cities the demand for lobsters in shell is expanding, but while shipments are being made from so many different points with much irregularity in shipping dates, sizes and condition the profits obtainable are less than they should be and the development of a satisfactory business is retarded.

OTHER EXPORTS OF LOBSTERS-IN-SHELL

As to the export of lobsters in shell to other countries than the United States much has been said from time to time, but little accomplished. Several spasmodic attempts have been made but generally on a small scale and without proper co-ordination at the two ends of the transaction. Some special shipments are on record, such as a gift sent to King George III of England early in the last century and another from Maine in 1862 to Emperor Napoleon III of France, besides some later attempts to propagate lobsters in Pacific waters and even sending them as far as New Zealand. In 1890 Arthur and Harold McGray, of Shelburne, Nova Scotia, devised a "new way" of keeping lobsters alive so that they could be shipped to Europe. Permission was given them to conduct experiments on a light-ship off Barington in the following year and beginning with ten lobsters, which they kept alive for 48 hours, they succeeded in keeping lobsters alive for 5, 8, 11, 13, and eventually 18 days on this stationery ship. The Government voted them \$300 towards testing the method on board a ship crossing the Atlantic in waters constantly changing in temperature. Fifty lobsters were personally conducted by one of these men on board the SS. *Historian* from Halifax, Nova Scotia, on December 10, 1891. A succession of accidents was recorded. On the first day two of the lobsters died owing to unsatisfactory condition when shipped. On the fifth day four succumbed to the rapid change of temperature in the waters of the Gulf Stream. One of the receptacles containing fifteen lobsters was lost overboard during a storm. Two died from injuries inflicted by larger and stronger companions. Others were reported dead "from some unknown cause". The steamer did not reach London until December 26, and because of the Christmas holidays had to be held for two more days. Dock water and fog killed all the remaining lobsters except four. According to a London newspaper "the practicability of the scheme had been demonstrated" and the promoters were satisfied, returning to Halifax in order to secure patents and a fifteen-knot boat to carry the lobsters across the Atlantic. About the same period a fairly large shipment of boiled lobsters went forward in a refrigerator car to New York and from there with a shipment of frozen mutton in cold storage to Liverpool England. These arrived in good condition and it was alleged that the lobsters on being thawed out tasted like mutton while the meat had assumed a lobster flavour. In 1898 Arthur Boutilier, of Halifax, sent a small shipment to England by the Furness steamer *Halifax City* and Dr. Arthur S. Kendall, M.P., of Sydney, being a passenger, gave the shipment attention during the voyage and after its arrival in London. It was said the shipment turned out satisfactorily: the lobsters were reported on most favourably but no further lots were sent forward. Still more recently boiled lobsters wrapped in a special paper have been sent across the ocean with avowed

success, but only in small lots. In these cases either the lobster or the paper must have been too dear to merit repeat orders. Now brine-frozen lobsters are reported as being shipped to Britain, and some say they promise success, but although chilled meat of this description has been sold for some years in the United States and Canada, the demand for these lobsters does not yet appear to have been large enough to render profitable results for many operators.

It is interesting to recall in connection with these shipments five attempts that were made between 1875 and 1889 by the United States Government to carry lobsters from the Atlantic to the Pacific ocean. The first was said to have been successful but the other four proved failures. The Canadian Government also made two attempts to propagate lobsters in Pacific waters. In July, 1896, a shipment of over 600 live lobsters—200 of which were females with spawn attached—and 150 of smaller sizes, left Halifax in charge of C. A. Stayner, who had had an extensive experience in handling these crustacea. Fifty per cent of the lobsters reached New Westminster alive within seven days and were subsequently planted in the water of the strait of Georgia. The second consignment left Halifax in June, 1905, and consisted of 1,025 live lobsters in charge of Ernest Kemp, a departmental officer, arriving at Vancouver in six days in good condition.

Criticism of all such experimental efforts can easily be made and it would seem reasonable to believe that with the aid of improved knowledge and transportation some of these attempts could be made now with better success, and the accounts show that possibly the greatest weakness was in not having followed the various trials systematically and being without proper co-ordination at the points of delivery. There seems little doubt but that there is a good market awaiting a properly conducted and systematic method of shipping lobsters in shell to European markets, not only to Great Britain but to France and other continental countries, and the results of such experiments as those recorded need not discourage those in the business from featuring it either as a live lobster project or for boiled lobsters or again for the brine-frozen product; but as in other cases the drawback is seen in the small divisional fractions into which the conduct of the industry has been allowed to drift, and to the lack of unity and co-operation that exists.

THE SINS OF THE FATHERS

In any contemplation of the progress made during the past there is usually a strong tendency to draw attention to its drawbacks and a danger of over-emphasizing whatever evils and difficulties existed. There is much, however, to be learnt from the bygone days in criticizing such features because of their far-reaching effects.

"The evil that men do lives after them;
The good is oft interred with their bones."

Articles written anent dirty "kitchen" lobster factories in Canada and Newfoundland did much harm to this industry when they appeared about twenty-five years ago, though a wide circulation of these reports was prevented. The injury done to the business was not felt for long, but, on the other hand, neither were the improvements that followed the exposure sufficient. It is not desired to injure the present because of past sins, but it must be acknowledged as a historical fact that many of the early packing establishments were unsafe and unsanitary and conducted without reference to hygienic and moral laws. Upton Sinclair within more recent times exposed many evils that prevailed in the stock yards of Chicago. Many may still believe that some of the examples were over-drawn. The consequences to all packers of food were disastrous, but to-day most people, and even the packers themselves, will acknowledge matters to have been vastly improved through the amendments made by the operators and the legislations enacted for destroying the possibilities of such evils.

Matters everywhere are not yet what they should be. Scientific investigations made within the past fifteen years have shown needs for reform and the Government has instituted regulations that at least partially remedy the defects. To what extent these will be extended remains to be seen. Reforms in the establishments and equipments have been slow, but gradually improvements are being secured and a proper standard will likely be accomplished soon.

The lobster fisherman at first was but the employee of the packer. He fished the traps provided by his employer at a daily, monthly or season's wage. Later, he was supplied with traps, rope and bait and was paid according to the catch secured. It was found then in some districts that while the traps were owned by the canneries insufficient efforts to save them after a storm and collect them at the end of the season were made; so the system was changed into that of advancing men money or materials for traps, etc., because ownership would naturally induce greater efforts to lessen loss from such sources. While thus solving one trouble a new one was created. The payment for the supplies out of proceeds of the catches was not always possible. When the competition between cannerymen and fishermen who were unscrupulous—there are some black sheep in every flock—were able to dispose of their catches to others for cash and leave their accounts with the suppliers of the material unpaid at the end of the season. By getting supplies from a different source the following year they frequently succeeded again in avoiding their payments. As each season's catch diminished or more men entered the fishery the individual catches often proved disappointing, and fishermen whose intentions had been good found themselves unable to repay the packers. This system of advancing made it necessary for those in the business to reckon upon a percentage of losses that carried the burden upon the shoulders of the just as well as the unjust. To-day many lobster fishermen supply themselves with their own materials and are financially independent of packers and dealers. They have emerged entirely from the category of employee to that of merchant, upon an equal footing with the best canner. To whatever extent the old "credit system" is applied, and to the degree in which the accounts are paid, must rest the basis upon which the canner shall fix his calculations for the cost of doing business and the price he can afford to pay for canning lobsters. Bad debts form a parasite in the business and the person who causes such losses become parasitic.

THE PAST AND THE PRESENT INDUSTRY

The preceding review of historical and other features of the lobster industry is but partial and does not claim itself complete. It is intended primarily to interest those who are or have been connected with the industry in certain events and conditions of earlier years that have affected the business in later stages. It is understood the Department of Fisheries contemplates collecting data from the past that will form a concise history of the growth and development of the fishing industries of the Dominion among which that of catching, canning and shipping lobsters certainly forms an important feature. People and events mentioned in these articles will serve to remind those interested of further names and facts worthy of attention in a more complete record and it is hoped that many readers who can furnish evidence of value will be induced to do so. There are doubtless other pioneers of the industry whose efforts are worthy of remembrance. These reflections as to the past tend to show errors into which the earlier operators strayed that have hampered better progress being made and that advantages which they possessed would have enabled more profitable and enduring results for all concerned had there been more amity and co-operation among those interested.

In those "good old days", as some people sentimentally call them, there was a peculiar selfishness in all businesses and especially in any where a part of its workings could be shrouded with mystery. The canning of food stuffs possessed secrets (?) that were jealously guarded and emphasized to the canner the necessity for looking after "No. 1", anxious to be the first and willing then to "let the devil take the hindmost". On looking into this feature it can be seen that this has carried its demoralizing effect to such an extent that it is not yet wholly obliterated. Sufficient has been said to show that the lobster industry has suffered in this way. The avoidance of responsibility as to the goods produced that is described in the phrase "Caveat emptor" (Let the buyer beware) has certainly cast a blemish on the past. Even to-day with pure food regulations and protective legislation there continue conditions that render the requisite guarantees of but little avail.

One other important defect which has been observed by many is that the reckoning of cost of production was seldom properly made or known and this state of affairs has landed many operators and their creditors into financial difficulties. This did not apply to the canning industry alone, but was made clearly evident during the late war for all lines of endeavour when, as the result of an enquiry, it was discovered that only a very small percentage of the manufacturing business on the American continent possessed satisfactory methods for checking costs, and when this is applied to the fishing industries the difficulty of foreseeing the supplies available render the costs of doing business extremely difficult to calculate. To-day the lobster industry is not conducted on a scale whereby the law of averages can be individually applied for the proper protection of even the largest operators, while the fishermen and many of the smaller canners have to content themselves with haphazard estimates and trust to securing large catches or the absence of competition to leave them sufficient surpluses out of which their current expenses can be paid. Modern business, by organization, is able now to cope with uncertainties of this description so as to overcome the difficulties of trades that are equally as complicated as those of the fisheries but little has been done in that direction by the lobster industry. The story of the industry at all times shows each branch dependent upon another. All are inter-dependent. The fisherman needs the dealer and canner. The canner and dealer depend on the fishermen. They in turn need the distributors, and all of them require the help of the Department of Fisheries. In the same manner the Government needs the co-operation of all others, otherwise conservation will be impossible and without that the whole structure must perish. None can succeed rightly without considering the rights of others. Such matters, it is believed, the trade of to-day can learn from a contemplation of past history and its lessons.

WHITHER THE LOBSTER INDUSTRY

There are many who take a very pessimistic view regarding the future of the lobster fishery. They believe that a "slow, steady and sure" depletion of the supply will continue. Such jeremiads have been heard for the last half century. Fifty years ago the end was seen to be within three, five or ten years and the same prophecies have since been almost annually repeated but the end deferred. The only difference would appear to be that the Jeremiah of 1880 foresaw the climax not later than 1890 and he of 1930 will simply postpone it until 1940. On the other hand, there are optimists who err in the opposite extreme and mar the industry with their carelessness as to the future. The warnings of conservation have got to be heeded and with the better observance of the prevailing restrictions made to that end it will be possible to gauge correctly their efficiency in a way that formerly could not be done. There are people who assert

that because of the irregularities of the past and inferior qualities lobsters have lost their popularity. While it is admitted that there has been evidence that lobsters, both canned and in shell, have suffered greatly in this respect, and their are many who have banned lobsters from their tables because of such unfortunate experiences, there are buyers throughout the world willing and eager to buy all the lobsters that can be produced if a regular standard is obtainable and no one to-day doubts that with the increased knowledge that exists this can be attained. Others gloomily assert that the competition of Japanese crabmeat and South African crayfish is a menace to the industry, and in the unorganized state of the lobster canning business there is liable to be some truth in the statement, but there is no doubt that lobsters have a decided superiority in taste and texture that cannot be nullified by the competition of any crustacean rival once a reliable packing standard has been attained.

These various problems can only solve themselves by that co-operation which is generally acknowledged to be essential. This formed a part of the report and recommendations of the Fisheries Commission of 1928. The trend of business everywhere is for organization and co-operation. In this way producers and manufacturers, and through them the consumers, are being brought closer together. Successful modern business takes all that is helpful into partnership and makes its chief gains by clearing away the barnacles that impede their progress. The hope for the lobster industry, like many others, is in the saving of its intermediate charges, unnecessary buildings and equipment with their expense, insurance and depreciation. These are obstacles to be rid of if success is to be attained. There is no easy royal road to success for anyone. One fisherman cannot catch any more lobsters than another except by personal energy or equipment. Intelligence as to the style of traps, the visits paid them, and the material and quality of bait are not to be reckoned as trade secrets. The shipper of live lobsters may boast of his selling methods but any advantage he has rests almost solely upon the way he receives and cares for the product he handles. If he ships good lobsters he receives a benefit but he continues to lose along with everyone else in the business as long as any send lobsters forward in poor condition. Few packers, if any, have special markets that others cannot enjoy. Some do have customers who prefer their goods or their brands, but as long as any other shippers send poor qualities to the consumers the reputation of the bad lobsters injures the sale of the good and the entire trade must suffer by the market fluctuations and general discontent among buyers which these cause. The general quality must be uniform in order to create uniform demand. Shipments to markets need to be systematically made and divided, which is impossible while each packer remains a separate unit and acts without regard to his neighbour. There is very little satisfaction, after all, for any to merely feel just a little superior to his neighbour and be satisfied only because he feels that he has obtained better results than his rivals. The shipping and treatment of lobsters needs care and skill. A farmer always handles eggs with extreme care and a fisherman should certainly handle lobsters, which are much more expensive and quite as fragile, with every caution. Canneries generally are becoming laboratical. The science of canning requires utmost precision and has to be done with the mathematical precision of a medical prescription and the manager of a lobster factory should not be merely a tinsmith but requires education and to know much biology, bacteriology and chemistry so as to be able to assure the production of a reliable food product. The Government now make regulations for the protection of the consumer as well as for the conserving of the supply for future producers. Their task calls for the help of the operators and the operators need the assistance of the fishery officials for the mutual benefit of each. With co-operation good lobsters can be caught and delivered to dealers and canneries; good canned lobsters can be produced, good prices can be obtained

and profits secured. Good value can be given to consumers and a continued future supply assured.

These things are feasible with the disappearance of the old selfishness, and by the substitution of the Golden Rule the future of the lobster business in the Maritime Provinces can be assured.

Times have changed and are changing and will continue to change. The predominance of canning will in time probably have to take a second place to shipments-in-shell. These shipments in turn will have to give way to other new methods that are already mooted within the realms of possibility. Whether it is better for all to join forces so as to meet new conditions and develop them together or to allow matters to take their course and depend upon the survival of the fittest appears to be looming up in many minds just now and most of those who have given the matter any consideration agree with the recent commissioners that co-operation will form the best solution.

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